

Statistical and Low Temperature Physics (PHYS393)

# About the module

Kai Hock

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University of Liverpool

## Contents for the module

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- 0. About the module
- 1. Basic statistical mechanics
- 2. Ideal gas
- 3. Electrons in metals
- 4. Photons and phonons
- 5. Dilution refrigerator
- 6. Magnetic refrigerator
- 7. Superfluids
- 8. Superconductors

## Recommended textbooks

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1. Statistical Mechanics - A Survival Guide,  
A. M. Glazer and J. S. Wark  
Oxford University Press, 2001
2. Basic Superfluids  
Tony Guenault  
Taylor & Francis Inc., 2003

Both are available as ebooks in the Liverpool University library.

My teaching webpage:

<http://hep.ph.liv.ac.uk/~hock/Teaching/Teaching.html>

# Assessment

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Assessment for this module consists of:

90% Exam

10% Continual

## Continual Assessment

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There will be FOUR (4) tutorials assignments, and four tutorial sessions during the semester.

The deadline for an assignment will be 5 working days before the tutorial session.

Tutorial sheets will be given out at the lectures, and will also be available online:

<http://hep.ph.liv.ac.uk/~hock/Teaching/Teaching.html>

Anonymous marking: Fill in the cover sheet provided, fold top right-hand corner over your name and attach the cover sheet to your answer script.

The assignments should be handed in to the Student Office at the physics department.

### Late Submission:

- Each assignment is marked out of 20. ONE (1) mark is deducted for for each working day after deadline.
- Work assessed below the pass mark (40%, or 8 marks) will not be penalised for late submission of up to five days.
- Work received more than FIVE (5) working days after the submission deadline will receive a mark of zero.
- Re-take for this assessment will follow the rule for resit of the exam.

## Exam

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- The exam carries 90% of the total assessment.
- It is normally held in January.
- Resit will be in January in the following year.
- For PGT students, resit in August is possible.